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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,246	01/28/2004	Lakshmana Rao Chintada	101948016US1	4788
30083	7590	08/18/2005	EXAMINER	
PERKINS COIE LLP/AWS P.O. BOX 1247 SEATTLE, WA 98111-1247			TORRES, JOSEPH D	
			ART UNIT	PAPER NUMBER
			2133	

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/767,246

Applicant(s)

CHINTADA ET AL.

Examiner

Joseph D. Torres

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.  
2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-31 is/are pending in the application.  
4a) Of the above claim(s) 16-18 and 21-31 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 5-15, 19 and 20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 01/28/2004.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of claims 5-15, 19 and 20 (Group I) in the reply filed on 07/08/2005 is acknowledged. The traversal is on the ground(s) that "Groups I and II, claim 5 from Group I can be considered a generic claim, and claim 16 from Group II can be considered a species claim that includes elements that parallel all the elements of claim 5, but that additionally includes elements relating to setting a timer and resending. Likewise, with respect to Groups III and IV, claim 21 from Group III can be considered a generic claim, and claim 26 from group IV can be considered a species claim that includes elements that parallel all the elements of claim 21, but that additionally includes elements relating to setting a timer and resending. Accordingly, at the very least, Groups I and II should be combined to form a larger group and Groups III and IV should be combined to form a larger group". This is not found persuasive because, if as the Applicant points out Group II "additionally includes elements relating to setting a timer and resending" an Group II does not include the limitation "use of the second channel allows the sliding window at the data sending unit to be advanced beyond the sequence number of the lost frame prior to receiving an acknowledgement of receipt of the lost frame from the data receiving unit" nor does it include the limitation "the lost frame has a sequence number" [Emphasis Added]. The Applicant contends, "Groups I and III form an example of a subcombination that is not separately usable, as do Groups II and IV. For example, Claim 5 from Group I

Art Unit: 2133

demonstrates a method from the perspective of a data receiving unit, whereas claim 21 demonstrates a parallel method from the perspective of the apparatus or system that sends data to the data receiving unit. In this way, they are not separately usable (having a data sender without a data receiver would not make sense)". Even if the data receiving unit of Claim 5 from Group I requires a receiver, it can be used with receivers other than the one taught in claim 21. A data transmitter is still a separate device from a data receiver and serves a separate function with a separate mode of operation. And a data transmitter can still be used even if no receivers are connected to it, since it will still transmit data even if there is no receiver to receive the data. One could argue that a car engine is useless without a transmission, yet no one would consider an engine and a transmission for the engine as the same invention.

The requirement is still deemed proper and is therefore made FINAL.

Claims 16-18 and 21-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 07/08/2005.

This application contains claims 16-18 and 21-31 drawn to an invention nonelected with traverse in Paper No. 07/08/2005. **A complete reply to the final rejection must**

**include cancellation of nonelected claims or other appropriate action (37**

**CFR 1.144) See MPEP § 821.01.**

***Specification***

2. Since US Patent Application 09/694,943 has issued, page 1 of the specification should be updated to include the patent number for US Patent Application 09/694,943.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "the lost frame" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites, "allows the moving window at the data sending unit to be advanced beyond the sequence number of the lost frame to a maximum point of N-1", which makes no sense. If N is the frame sequence number of the lost frame, then the "moving window" is advanced beyond the sequence number N of the lost frame. It is not clear how N-1 can be a maximum for the moving window.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2133

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 5, 6, 8-15, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanerva; Mikko et al. (US 5930233 A, hereafter referred to as Kanerva).

35 U.S.C. 102(b) rejection of claims 5, 11 and 19.

Kanerva teaches at a data receiving unit, identifying a failure to successfully receive a frame sent over a first channel from a data sending unit implementing a sliding window under the sliding window protocol (col. 3, lines 25-27 in Kanerva; col. 4, lines 54-58 in Kanerva teaches that traffic channels are established for transmitting data between base and mobile stations, that is, a traffic channel is a first channel; Note: a missing frame is a lost frame), wherein the lost frame has a sequence number (col. 5, lines 42-44 in Kanerva); establishing a second channel between the data sending unit and the data receiving unit (Figure 2 in Kanerva teaches multiple channels are established; col. 4, lines 54-58 in Kanerva teaches that control channels are established for signaling between base and mobile stations, that is, a control channel is a second channel); and sending a request for retransmission of the lost frame over the established second channel (a request for retransmission is a control signal; col. 4, lines 54-58 in Kanerva teaches that control channels are established for signaling between base and mobile stations), and wherein use of the second channel allows the sliding window at the data sending unit to be advanced beyond the sequence number of the lost frame prior to receiving an acknowledgement of receipt of the lost frame from the data receiving unit (col. 1, lines 52-55 in Kanerva teaches that a "window represents a sliding sequence of

Art Unit: 2133

successive frames that have been sent but have not yet been acknowledged (a transmission window)"; col. 6, lines 7-13 in Kanerva teaches that the window is slid forward after receiving frames 1 and 2 the window is slid forward and frames 5, 6 and 7 are buffered prior to receiving frames 3 and 4 and prior to receiving an acknowledgment thereby avoiding a unnecessary retransmissions of frames 3 and 4, if they are received at a later time out of order).

35 U.S.C. 102(b) rejection of claims 6 and 12.

A logical tunnel channel is a virtual channel in a network not necessarily comprised of wireline communication channels. Col. 4, lines 54-58 in Kanerva teach that a control channel is a virtual channel in a network not necessarily comprised of wireline communication channels made up of time slots; hence the control channels in Kanerva are substantially logical tunnel channels.

35 U.S.C. 102(b) rejection of claim 8.

See Steps 307 and 311 in Figure 3 of Kanerva.

35 U.S.C. 102(b) rejection of claims 9, 13 and 15.

See col. 6, lines 3-6 of Kanerva. Note: a reception window is a receive window.

35 U.S.C. 102(b) rejection of claim 10.

Art Unit: 2133

Col. 6, lines 58-67 in Kanerva teach that data rates are variable and depend on data rate requirements at the receiving end.

35 U.S.C. 102(b) rejection of claim 14.

See Steps 307 and 311 in Figure 3 of Kanerva. See col. 6, lines 3-6 of Kanerva. Note: a reception window is a receive window.

35 U.S.C. 102(b) rejection of claim 20.

Col. 8, lines 62-67 in Kanerva teach that a timer can be used.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.



Art Unit: 2133

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanerva; Mikko et al. (US 5930233 A, hereafter referred to as Kanerva) in view of Leermakers; Rene (US 6928468 B2).

35 U.S.C. 103(a) rejection of claim 7.

Kanerva substantially teaches the claimed invention described in claims 5 and 6 (as rejected above).

However Kanerva does not explicitly teach the specific use of retransmitting missing data in the second channel, i.e., the control channel.

Leermakers, in an analogous art, teaches use of retransmitting missing data in the second channel, i.e., the control channel (Claim 10 in Leermakers teaches retransmitting missing data in a return control channel).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kanerva with the teachings of Leermakers by including use of retransmitting missing data in the second channel, i.e., the control channel. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of retransmitting missing data in the second channel, i.e., the control channel would have provided a means for avoiding use of a noisy channel.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JOSEPH D. TORRES  
PRIMARY EXAMINER

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Art Unit 2133